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ABSTRACT

This paper is the result of an effort to compile general information that has been gathered during the last few years in connection with an ongoing cross-national study of preschool systems, and to add to this data other cross-national statistics. Sections of the paper concern: (1) family characteristics relating to preprimary children; (2) preprimary education coverage rates in the United States and other countries; (3) features of early childhood education programs in various countries, including Japan, Kuwait, Hong Kong, Swaziland, and India; (4) studies of the effects of preprimary education in various countries in Africa, Asia, Europe, and South America; and (5) ways information about preprimary education programs in other nations can help those planning preprimary education programs in the United States. It is concluded that as the United States plans for early childhood programs, information from other countries should be used since this would result in a wider examination of the major issues, a more thorough consideration of potential solutions to problems, and the most comprehensively based system of services for preprimary children possible. A list of 38 references is appended. (RH)

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A Look at Early Childhood Education in the United States
From a Global Perspective

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In June 1989, Americans were able to watch on live television as events unfolded in Tiananmen Square. In November of the same year, on live television, we saw the Berlin Wall "crack" and then open. Today, using facsimile machines, U.S. companies and individuals can exchange messages and documents with nearly every country in the world in a matter of minutes. There is no question that through technology, the world is becoming a smaller and smaller place, with the happenings in nearly every country almost instantly affecting citizens of other countries. Clearly, in a world shrinking as rapidly as this, information about events in countries other than our own is no longer a luxury; it is a necessity. As various countries begin to unite to coordinate their activities (as the European Economic Community has united for example), their joint planning will need to be based on knowledge of the current realities in one another's country.

The business and financial communities were among the first to recognize the necessity for and benefits of collecting and sharing information across nations. More recently--within the past 20 to 25 years--the formal education community has begun global information sharing. And now that early childhood education programs operate in nations throughout the world, there is a recognized need to begin a similar exchange about the services that precede compulsory education. This sharing of information can allow a given country to examine its early childhood education system (including philosophy, goals, curriculum) in light of the systems developed by other nations. The broader perspective resulting from such an

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examination can only serve to enhance a nation's future planning of early childhood services.

At present, comprehensive and detailed information about preschool education in most countries around the world is not readily available in the U.S. Certain information sources do exist, however. For example, a recent book by Tobin, Wu, and Davidson (1989) provided an in-depth picture of a single preschool in each of three countries--Japan, China, and the United States. The Council of Europe and the Organization for Economic and Cultural Development (OECD) have both published information about preschools in selected European countries, but these reports are difficult to locate outside of Europe. The results of international comparative research studies are beginning to appear in the U.S. literature. These studies, however, usually focus on a few specific classrooms and specific teachers and provide little general information about the preschool system in any single country.

There is definitely a need to begin to collect information from other nations about their preschool systems--information about the proportion of eligible children enrolled, the goals of programs, the training of personnel, and so on. This paper will be a first step in this information collection effort. By compiling general information that has been gathered during the last few years in connection with an ongoing cross-national preprimary study and by adding other cross-national statistics that we were able to locate, we begin to answer such questions as these:

- o What percentage of preprimary children does the United States serve in early childhood education programs and how does this number compare with the percentages of young children served by early childhood education programs in other countries?
- o What are the features of early childhood education programs in other countries?

- o What effects of preschool attendance have researchers found in studies conducted in various countries?
- o What are the implications of the answers to these questions for the future direction of early childhood education in the United States?

Since the stated purposes of preschool programs are often tied to needs of families, this paper begins with an international look at the characteristics of families with preschool-aged children. Following this, we examine the extent of early childhood education services in the U.S. as compared with other nations, and we explore the features of early childhood education programs in selected nations. The results of various countries' research studies on the effects of participation in early childhood education are presented next, followed by a discussion of the implications of these various pieces of information for the planning of early childhood education in the United States.

Two major terms used in this paper are early childhood and early childhood education services. Early childhood is considered as the period between the age of 3 years and the age of compulsory school attendance (CSA). CSA in most countries in most countries is set at 6 years of age, with over 95 percent of the countries in the world setting CSA between 5 and 7 years of age (UNESCO, 1988). In this paper, the term preprimary children denotes children in this 3-CSA age-range.

Early childhood education services are services for children between 3 years of age and CSA that have an instructional component. The percentage of preprimary children served by early childhood education services is designated as a country's preprimary education coverage rate. For each country, this percentage has been computed by dividing the number of children enrolled in early childhood education services by the total early childhood population.

Early childhood education services may be denoted by various names (e.g., preschool programs, child development programs) but the common element across these services is an instructional component. In some countries, services provided to children 3 years of age and older are considered as education services (and are usually operated under the auspices of the educational agency), and services provided to children under 3 years of age are considered as care services. In such countries, this age-related labeling is used regardless of the nature of the activities occurring within a particular service setting. When preprimary education coverage rate statistics are reported for these countries, *all* services--both care and instruction--for children 3 years of age and older are included.

In other countries, including the U.S., services for children anywhere from birth to 6 years of age may be labeled either as care services or as education services. Until recently in the U.S., this "care" or "education" label often indicated the daily duration of the service ("care" services being full-day, "education" services being part-day) rather than the nature of activities occurring in the service setting. For such countries, it is difficult to interpret the preprimary education coverage rates, since the preprimary education figures may include only those services (rightly or wrongly) having an educational label, rather than all those services having an instructional component. Such figures may consequently be somewhat inaccurate estimates of preschool coverage. One way to make the two kinds of preprimary education coverage rates comparable would be to include all care and education services for children 3 years of age and older in the calculations for every country. However, for many countries, such an adjustment is impossible, since the extent of (noninstructional) preprimary care services is unknown. Consequently, the preprimary education coverage

rates presented in this paper should be considered only as rough estimates.

As noted earlier, before we present the preprimary education coverage rates for various countries, it is useful to examine the characteristics of families with preprimary children in the U.S. and to compare these characteristics with those of families with preprimary children in other countries. Since the need for early childhood education services is often viewed as related to family characteristics (such as whether the mother is employed or whether there is a single-parent household), this information will allow for an examination of these relationships in various countries later in this paper.

Family Characteristics Relating to Preprimary Children

Participation of Mothers in the Labor Force

In the U.S., available national statistics regarding employed mothers do not provide separate figures according to the ages of their young children, only aggregate numbers for women with children "under the age of 6." In 1985, 57 percent of women with children under the age of 6 were employed (U.S. Department of Labor, 1988). This employment rate is slightly higher than the 1985 employment rate of 55 percent for all women, as reported by the U.S. Bureau of the Census (1987). The employed mothers with children under the age of 6 come from both two-parent and single-parent households. There are 12.8 million employed mothers from two-parent households (having both parents in the work force) with an estimated total of 8.8 million children younger than 6. In addition, there are 3.5 million employed single mothers who have a total of 1.8 million children younger than 6. Of all these mothers of young children, approximately 70 percent are employed full-time (35 or more hours per week), and 30 percent are employed part-time (U.S.

Department of Labor, 1988).

To provide data comparable to the U.S. data, it would be helpful to examine the labor force participation rates for mothers with children under the age of 6 in other countries. However, data of this type are not collected by most countries or, if collected, are not available in reference sources outside of the specific country. In fact, it has even been difficult to locate statistics on employed mothers. Therefore, to provide general comparative information, the percentages of females between 15 and 39 years of age who are "economically active" in various countries are presented in Table 1. This age-range has been selected because it includes most women who have children younger than 6 years of age.

The International Labour Organization (ILO) provides the following definition for the term "economically active population":

The economically active population comprises all persons of either sex who furnish the supply of labour for the production of economic goods and services as defined by the United Nations systems of national accounts and balances, during a specified time-reference period. According to these systems, the production of economic goods and services should include all production and processing of primary products, whether for the market, for barter or for own consumption, the production of all other goods and services for the market and, in the case of households which produce such goods and services for the market, the corresponding production for own consumption (ILO, 1988, p. 3).

The employment rate for women between the ages of 15 and 39 was computed for each country by dividing the number of economically active women aged 15 to 39 by the total number of women aged 15 to 39.

The numbers in Table 1 can be interpreted only as "general indicators" of the proportions of mothers with young children in the labor force in various countries. Since cultural traditions and political/economic policies regarding the appropriateness of mothers with young children being employed vary from country to country, the relation between the employment

rate for all women between 15 and 39 years of age (67 percent in the U.S.) and the employment rate for mothers with children younger than 6 (57 percent in the U.S.) will vary from nation to nation. Also, as noted by the ILO "the activity rates for females are frequently not comparable internationally, since in many countries [e.g., the developing countries] relatively large numbers of women assist on farms or in other family enterprises without pay, and there are differences from one country to another in the criteria adopted for determining the extent to which such workers are to be counted among the economically active" (ILO, 1988, page 3). Bangladesh and Pakistan are two countries in which this type of "economically active" woman has probably been undercounted.

As Table 1 indicates, within most regions of the world, there is large variation in the female employment rates of the various countries. The western countries of the European region have some of the highest employment rates, as do the northern countries in the Americas, some of the more industrialized countries in the Asian region, and the Oceanic countries. The data for the African countries are difficult to interpret.

The countries often considered most similar to the U.S. are western European countries, and as Table 1 indicates, the employment rates of women aged 15 to 39 in these countries range from 46 percent to 82 percent. The rate for the U.S. (67 percent) falls within this range, which indicates that out-of-home early childhood services are needed by large numbers of families in all these countries.

Children Living in Single-Parent Families

This family characteristic is important in the U.S. because of the relationship that exists between family income and type of household (two-parent vs. single-parent). Since only a very small percentage of single-

parent families have male-householders (are headed by males), this discussion will focus on female-householder families. In 1987, 16 percent of all families in the U.S. were in the category of "female-householder, no-husband-present" (U.S. Bureau of the Census, 1988). The percentages of households in this category for each of the three major ethnic groups in the U.S. were as follows: white, 13 percent; black, 43 percent; Hispanic, 23 percent. In 1987, 20 percent of all children under 18 in the U.S. were in families with an income below the poverty threshold. However, in the category of female-householder, no-husband-present families, 55 percent of the children under 18 were in families with an income below the poverty threshold (U.S. Bureau of the Census, 1988).

Is the percentage of female-householder families in the U.S. greater than those of other countries? We were able to locate two sets of data that provided information on this matter. First, a set of 1980 data covering most western European nations indicated that in every country covered (except Finland), single-parent households accounted for no more than 6 percent of the total households. In Finland, 10 percent were single-parent households (Levitan, Belous, & Gallo, 1988). The comparable 1980 percentage figure for the U.S. was 13 percent. The second set of data, collected in 1985 and covering 9 European countries, was reported by Moss (1988). He states that in Denmark, West Germany and the U.K., approximately 10 percent of all households containing at least one child 9 years of age or younger were "lone-parent" households. In the other 6 countries, the proportions of lone-parent households were lower than 10 percent.

Conclusion

What can we say about the family characteristics of preprimary children in the U.S. relative to other countries? More than half of the mothers in the

U.S. with children younger than 6 are employed, with most of them working 35 hours or more per week. The employment rate for women aged 15 to 39 in the U.S. is similar to the rates for western European countries and for many industrialized nations in other parts of the world. These similar employment rates would suggest similar levels of need in the U.S. and in other industrialized countries for the kinds of early childhood services related to maternal employment. Also, the percentage of female-householder, no-husband-present families is considerably larger in the U.S. than in most other countries of the world.

Preprimary Education Coverage Rates in the U.S. and Other Countries

Coverage Rate in the U.S.

Two sets of data provide estimates of the preprimary education coverage rate in the U.S. First, Lawrence Schweinhart from the High/Scope Educational Research Foundation has compiled figures from multiple sources to provide an overall picture of the use of early childhood services for 3-and 4-year-old children in the U.S. Second, a coverage estimate for the U.S. can be calculated using a figure from the United Nations' multinational data collection regarding the number of children enrolled in educational services prior to compulsory schooling.

Schweinhart has concentrated his data compilation on services for children under age 5, since 96 percent of all 5-year-olds in the U.S. attend kindergarten (Center for Education Statistics, 1987). Table 2 presents the percentages of children utilizing different types of services, with separate figures for children with mothers in the labor force and for those with mothers not in the labor force (Schweinhart, 1989). The service categories in Table 2 have been constructed from the many diverse categories covered in each of the different statistical sources cited in the table's footnotes.

When all categories of early childhood services are included in the computations, the preprimary education coverage rate for 3- and 4-year-old children is 45 percent. The individual data sources did not provide separate estimates for centers (i.e., child care centers) and for schools (i.e., preschools, nursery schools), so it is not possible to compute a preprimary education coverage rate for 3- and 4-year-olds that would include only schools.

A U.S. preprimary education coverage rate for children between 3 years of age and CSA (6 years of age) can be estimated by combining the data for 3- and 4-year-old children from Table 2 with the figures for kindergarten attendance of 5-year-olds. The result is a 61 percent preprimary education coverage rate for children in the U.S.

A preprimary education coverage rate for the U.S. can also be calculated from Table 3.3 (Education Preceding the First Level) of the 1988 *UNESCO Yearbook*. The description of the data included in UNESCO's table is as follows: "The data refer to education preceding the first level, e.g., kindergarten, nursery schools, as well as infant classes attached to schools at high levels. Nursery play centres, etc., have been excluded whenever possible. . . . Data in this table should be considered as a minimum indication of the amount of preprimary education, since complete data are not available in all cases" (UNESCO, 1988, p. 3-81).

According to this table, 6,306,000 children were enrolled in education preceding the first level in the U.S. in 1985, which based on U.N. 1985 population figures, implies a preprimary education coverage rate of 60 percent. The comparable rate for 3- and 4-year-old children, as calculated using the enrollment figures in the UNESCO table and U.N. 1985 population figures, is 44 percent.

The high level of agreement between the coverage rates from the two sources--Schweinhart and UNESCO--is not surprising if one considers that perhaps the same original sources of information were used by Schweinhart and by persons providing information for the UNESCO table.

Coverage Rates in Other Countries

We also calculated preprimary education coverage rates for other countries by using the enrollment figures presented in the 1988 UNESCO Yearbook's Table 3.3 and U.N. 1985 population data for individual countries. We assumed that in most countries, the pre-first-level education services of the UNESCO table were provided to children 3 years of age and older. We then computed the coverage rate for each country by dividing the enrollment figure given in the UNESCO table by the total number of children between age 3 and CSA for that country.

We determined the CSA for each country from Table 3.1 (National Education Systems) in the 1988 UNESCO Yearbook. We used population figures from Table 7 of the 1985 and 1986 UN Demographic Yearbooks, since these population figures are given for conveniently narrow age-ranges. For nearly all countries, the most recent data available in the pre-first-level education table was for 1985; so we used this year for all countries to facilitate cross-national comparisons. If 1985 data were not available for a country, the closest year for which both enrollment data and population data were available was used (1983 was the earliest year used and then only for 3 countries).

Preprimary education coverage rates calculated from the UNESCO data collection would seem most useful for cross-national comparisons, first, because in this data collection, uniform questions were asked of the government agencies in various countries, and second, because uniform

guidelines were used by UNESCO in determining the various countries' pre-first-level enrollment figures. Also, the U.N. 1985-86 population data--because it was reported by individual countries following uniform guidelines--would seem most comparable across countries and most appropriate for our use with the UNESCO enrollment data. Table 3 presents the preprimary education coverage rates for all countries, with population over 1 million, for which the data were available.

Even though these coverage rates provide the best available data, some problems inherent in collection of the information need to be noted. First, even though the United Nations asked uniform questions and used uniform guidelines for each country, the data supplied by countries may not have been comparable. That is, countries vary in the types of records they keep and in the amount of information they collect. For example, some countries may keep records only on "capacity" of preprimary programs rather than on actual enrollment. Also, some countries may not ensure that enrollment data have been received from all districts of the country and thus may report an incomplete set of information.

Another problem relates to the different definitions of "education preceding first level" that might have been used by various countries. For example, some may have included enrollment in combined health/education programs in their data, while others may not have done so. Or, a country might have reported enrollment data only for publicly funded programs, since it had not collected figures for private programs.

Because of the problems noted, the coverage rates in Table 3 should be considered as only rough estimates, and the data should be used only to explore the general relationships among countries. However, these data provide a starting place for examining the preprimary education coverage rates across various countries around the world.

Table 3 (the UNESCO/UN column) presents the coverage rates for 47 developed and developing countries. These coverage rates range from less than 1 percent to 99 percent. In general, European countries--both western and eastern--have high coverage rates. However, there are several European countries with fairly low or moderate coverage rates (e.g., 23 percent in Portugal, 24 percent in Denmark, 42 percent in Switzerland). The UNESCO/UN data indicate extremely low coverage rates for developing countries (e.g., 3 percent in the Congo, 1 percent in Ethiopia). It is important to note that in countries with low (or moderate) coverage rates, the distribution of preprimary education services is often uneven within the country. That is, services are likely to be available mostly in urban areas or are likely to be mainly private programs utilized by families of the "privileged classes" who can afford to pay the fees.

The UNESCO/UN coverage rate for the U.S., which includes 3-, 4-, and 5-year-olds, is 60 percent. (As noted earlier, the U.S. coverage rate for 3- and 4-year-olds is 45 percent). This 60 percent coverage is lower than the coverage rates for most European countries, but it is still within the upper third of all the UNESCO/UN coverage rates. This finding might be surprising to those who think of the U.S. as being "behind," as compared to other industrialized nations, in the provision of early childhood education services. However, when one realizes that in the U.S., kindergarten (which 96 percent of 5-year-olds attend) is not part of compulsory schooling and is therefore counted as an "early childhood education service," the figure is more understandable. Of course, the most useful comparison to make would be between the current U.S. coverage rate of 60 percent and the "optimum" U.S. coverage rate as determined by experts from the fields of education, child development, sociology, economics, and so forth. The results of such a

comparison would provide information about how far the U.S. has to go to reach its coverage rate goal.

For several countries, we were able to locate preprimary coverage rates from sources other than the UNESCO/UN source, and these are included in the four right-hand columns of Table 3. These other coverage rates are sometimes for a different year or for a different age-range than the UNESCO/UN rates, but they are still useful for general verification purposes. One can see that the rates from various sources are generally similar.

Future Plans Regarding Preprimary Education Coverage Rates

In addition to exploring recent preprimary education coverage rates in various countries, it is useful to ask about the plans various countries have to increase these rates in the future. Information on this topic is available for 13 of the 14 countries participating in the IEA Preprimary Project (only Hungary provided no information about its future plans). In 2 of the IEA countries (Belgium, Hong Kong), the data already indicate complete coverage. Each of the remaining 11 countries listed an increase in the preprimary education coverage rate as a major national goal during the next decade (Olmsted & Weikart, 1989).

Preprimary Education Coverage and Maternal Employment: The Connections

There is no simple, easily described cross-national connection between preprimary education coverage rates and female employment rates. One might expect that female employment and services for young children would go hand-in-hand in every country. Yet in some countries extended families are still common, and the employment of mothers does not necessitate out-of-home care and education services for young children. Other countries require few children's services because most women are employed in situations where they

can have their preprimary children with them (e.g., household industries, farm labor). Some countries with extensive children's services (primarily educational ones) also have cultural or religious traditions that frown on women being employed, especially if they have young children; so these countries have relatively low maternal employment.

Furthermore, from country to country, existing preprimary education services vary greatly in their suitability to the needs of employed mothers. In some countries children's services are primarily part-day (3 to 4 hours); in other countries they are primarily full-day (5 to 8 hours or longer); and in a few countries part-day and full-day preprimary education services are equally available. Some countries have their early childhood education and care services combined--under a single name and in the same setting; others have their preprimary education services and child care services in different settings, and it is necessary to transport a child between settings.

Nations also differ in their willingness (or ability) to support women's employment through the provision of children's services. Some governments bear the full cost of preprimary education services (and possibly care services), which allows mothers with young children to participate in the labor force without having to pay child care costs. In other countries, employed parents (or employed mothers, in single-parent families) must bear all or part of the costs of early childhood services. These differing governmental approaches to funding of children's services can result in different rates of female employment, different rates of preprimary education coverage, and consequently, different cross-national relationships between these two measures.

Even with a situation as complex as this, can we discern some pattern

across countries in the relationship between female employment rates and preprimary education coverage rates? For example, are most countries with high levels of female employment also ones with high preprimary education coverage? A total of 36 countries have information for both female employment rates (Table 1) and preprimary education coverage rates (Table 3). For each of these measures, we formed 3 groups of as equal size as possible, using the natural breaks in the percentages. A 3 x 3 table constructed from these groupings appears below.

Female Employment Rate	Preprimary Education Coverage Rate		
	High (60%-99%)	Moderate (30%-51%)	Low (<1%-28%)
High (67%-88%)	2	3	4
Moderate (46%-64%)	6	3	7
Low (26%-44%)	2	4	5

The table shows no clear pattern of relationship between female employment rate and preprimary education coverage rate for the 36 countries. It should be noted that the data in the table are limited to those countries for whom information was available on *both* measures. Some western European countries (e.g., Sweden, Switzerland) as well as some major countries from other parts of the world (e.g., USSR, India) could not be included in the table for lack of data. Consequently, the table provides only a partial picture regarding all countries of the world.

Since the U.S. has a high female employment rate, we might look at an example of a preprimary education system that has adapted to the current

needs of women in a country with a similarly high female employment rate. This information might be useful to U.S. policy makers as they plan future preprimary education systems.

In Belgium, the preprimary education coverage rate is 99 percent, and although a female employment rate could not be located for Table 1, Delhaxe (1989) presents some useful information. She states: "If one considers those employed full-time, employed part-time, and actively seeking employment, 66 percent of mothers of children under age 10 are 'economically active' in Belgium" (p. 14).

In Belgium, nursery schools are in operation from 8:30 to 12:00 in the morning and from 1:30 to 3:30 in the afternoon for 5 days a week during the school year. (Schools are closed on Wednesday afternoon.) All 3- and 4-year old children are at school in the morning, and most of them attend school all day, while all 5-year-olds attend a full day of school. Nursery schools are often located in school buildings, and child care services outside of class hours are available in 75 percent of these schools. The child care services are available in the morning (before 8:30), at noon, and in the afternoon (after 3:30). The care service in the morning and at noon is often free, but payment is requested from parents for afternoon care, with the fee varying from school to school (Delhaxe, 1989).

Other countries operate preprimary systems that have features similar to those of the Belgian system. For example, in Italy both half-day and full-day preprimary programs are available, and most parents are able to select the one that best meets their needs (Pistillo, 1989).

The preprimary programs currently in operation in public school settings in the U.S. probably most closely resemble the systems just described. In many of these settings, child care services are provided before and after school in the same building in which the child participates

in a preschool education program. The same problems, however, seem to exist in the Belgian and U.S. situations--problems regarding the quality of activities during non-class hours and the availability of trained staff. However, in each case, there has been an attempt to coordinate early childhood education services and care services or at least to provide the two types of service in one setting. The goal of providing one type of preprimary service--a single program with both educational and care components--is still a long way off.

Features of Early Childhood Education Programs in Various Countries

Throughout the U.S., early childhood education programs differ in emphasis. Some programs stress academic skills and focus on preparing the child for primary school. Other programs emphasize social development of the child and highlight activities that will provide opportunities for the child to develop his or her skills in getting along with other children. Still others have primarily a free play orientation. When an even broader range of preprimary services is considered--that is, when care and education programs are considered, programs can be found that combine child care features with one of the areas of emphasis described above.

How do the areas of emphasis for early childhood education programs in the U.S. compare with those of programs in other countries? In this section, we present a brief picture of early childhood programs in several countries. The areas of emphasis of these programs may provide a broader perspective within which to view programs currently in operation in the U.S. and may broaden our ways of thinking about the focus of our early childhood programs for the future. At present, information is most readily available about the nature of preschool programs in western European countries; so to

balance this, we present information about Japan, Kuwait, Hong Kong, Swaziland, and India.

Japan

In their 1989 book, *Preschool in Three Cultures*, Tobin and his associates provide an excellent picture of a preschool program in Japan. It is clear from the writings of these authors, as well as from information supplied by others (e.g., Lois Peak), that "group life" is the focus of the preprimary program in Japan. A Japanese preschool class typically contains 30 pupils and one teacher. Group identity is fostered by class names, symbols, and articles of clothing, and competition among preschool classes is used to promote group cohesion. Other children are the sources of encouragement and correction for specific behaviors in a child. Only on rare occasions will the teacher intervene to correct a child or to require a child to participate in a specific activity.

As Tobin et al. note: "To teachers at Komatsudani [the Japanese preschool] groupism does not inhibit the expression of natural feelings and joyful behavior. Rather, it makes possible the fullest realization of something truly human, the experience of camaraderie, of fusion, of unity with something larger than the self" (p. 39).

In a series of conversations about Japanese preschools held recently with Lois Peak (1989), she made the following comments regarding the relationship between the preschool's focus on "group life" and the child's prior experiences at home. Peak noted that in the home, the young Japanese child is catered to and pampered. The adults in the household (particularly the mother) respond to the child's every need. Consequently, the child begins to feel as though he or she rules the world--or at least the household. The particular preschool focus in Japan forces 30 "little

rulers" to coexist in one room, with minimal guidance from the adult. According to Peak, the child learns to "pull in his wings," that is, to adjust his or her behavior to develop into a member of a group.

This emphasis on group life appears to be stronger in preschools in Japan than in preschools in any other country that we know of. Little seems to have been written about the origin of this area of focus for Japanese preschools, and little research has been conducted on this type of program.

Kuwait

Two major factors have influenced the development of preschool programs in Kuwait. First, since the establishment of preschool programs (kindergartens) in 1954, the Kuwaiti Government has sought guidance from preschool experts in other countries, particularly England, Italy, France, the U.S., and the Soviet Union. As a result of the influence of primarily the western countries, Kuwaiti preschool programs are "concerned with the child's self-realization and the acquiring of a positive self-image, by providing opportunities for developing initiative, creativity, independence, and self-confidence" (Nashif, 1985, p. 79).

The second major influence, the cultural environment of Kuwait, "emphasizes aims concerned with the preparation of the child for life in an Arab Moslem society through a religious-moral-national education, in which the child is helped to identify with his family, country, the Arabian Gulf, and the Arab world at large" (Ibid., p. 79).

The confluence of these two influences has resulted in a frequent shift back and forth between different sets of program emphases. At present, Kuwaiti preschool administrators are working to develop a program that draws on some of the elements from other countries while building on and strengthening attitudes and behaviors important to an Arab Moslem country.

Hong Kong

At present, most of the preschool programs in Hong Kong focus on academic skills and on preparing children for primary school. In classrooms that resemble elementary schoolrooms, one teacher directs up to 45 children, who sit at tables or desks practicing their letters and numbers. These privately operated half-day programs charge fees, but fee assistance is available for parents who need it.

Sylvia Oppen of the University of Hong Kong discusses the relationship between this structured, academic orientation of the preschools and the higher education situation in Hong Kong. She writes:

"In 1986, kindergarten enrollment represents 89 percent of the relevant population (3- to 6-year-olds). This high proportion reflects the value that the Chinese traditionally attach to education, but it also reflects the economic and educational situation. Although a university degree has distinct economic advantages in Hong Kong, university places are only available for 2 percent of the population. Consequently university entrance competition is very keen, and success in previous schooling becomes a crucial factor. Formal schooling is an important avenue to social and economic mobility, and preschool is perceived as the first step along this avenue" (Oppen, 1989, pp. 119-120).

The situation in Hong Kong is reflected in part in many other countries, where a structured academic preschool program is favored by parents who place a high value on academic achievement. For many years, private programs of this type have operated in large cities (even in developing countries) for children from the "privileged classes." Children attending these programs often sit for written examinations at the end of preschool, and the results of these examinations determine which private elementary school they will attend.

Swaziland

Except for a small number of private preschools established during the 1940s

for expatriate Europeans, preschools in Swaziland have only been in operation since the 1970s (Tyobeka, 1986). Community responsibility for preschools is emphasized, and parent committees are elected for each preschool.

The broad goals for preschool education in Swaziland have been identified by the senior preschool inspectress as these:

1. [Providing children with] preparation for further education and for life
2. Providing relief from child-minding to mothers who are in full-time employment and/or overburdened by multiple tasks and responsibilities at home (Tyobeka, p. 5).

It should be noted that in the preschools in the developed countries Japan and Hong Kong, the programs focus primarily on developing skills and behaviors in the child, while the goals for the programs in the developing country Swaziland focus on the parent as well as on the child.

Swaziland's preschools, financed almost entirely by minimal fees charged to parents, operate from 8:00 a.m. to 1:00 p.m. Thirty percent of programs operate in church buildings, while others are held in community halls. The most common activities in the preschool are writing, singing, and reciting rhymes. Activities aimed at developing the social development skills of a child are infrequent, as are number-related activities (Tyobeka, 1986).

The reader is reminded of the second broad goal of preschool education stated by the senior inspectress (i.e., providing relief . . . to mothers). In a 1986 UNICEF-sponsored survey in Swaziland, 33 parents were asked to identify why preschools were started and allowed two responses each. The responses given, in order of frequency, were these:

1. To prepare children for primary school (25%)

2. There were too many pre-school children around with nothing to do (16%)
3. Don't know (14%)
4. No preschool nearby and there was a need for it (12%)
5. Other (12%)
6. Working parents had nowhere to send their children (9%)
7. To help children gain knowledge (7%)
8. Children are not admitted to primary school unless they have been to preschool (5%)

Only one of eight different responses explicitly mentions the parental needs that were stated in the second goal provided by the senior inspectress, and fewer than 10 percent of parents gave this response. This may indicate that different groups perceive different major purposes for preschools.

India

The largest early childhood program in India is operated by the Integrated Child Development Services (ICDS) program. In the mid-1980s ICDS involved nearly 20 percent of the poorest families in India, and by 1990 the program goal is to reach 40 percent of this group. "The heart of ICDS is the *anganwadi*--literally, the 'courtyard'--which is given or cheaply rented as a centre for information and help with child care" (United Nations Children's Fund, 1987, p. 36). The ICDS program is a combined health and education program run by an *anganwadi* worker, chosen from the local community, who receives ongoing training. "All *anganwadi* centres provide pre-school education and early stimulation activities for children under age of six" (p. 36).

This coordination of multiple services (i.e., health, education) into

one program is more prevalent among developing countries (e.g., India, Colombia), than among developed countries. However, the U.S. Head Start program is an example of this type of program in a developed country.

Discussion

Within the diverse set of preschool education services in the U.S., we can find programs similar to almost any of those we have just described in other countries. In some countries where the population is relatively homogeneous or consists of only a few subgroups (and where there may or may not be an accompanying "national" perspective toward education), a single type of program or a limited variety of programs may suffice to meet national needs regarding the welfare of children and families. In the U.S., with our many ethnic subpopulations, our vast urban-rural differences, our large variation in abilities to afford preschool services, it is most likely that a greater variety of types of programs is necessary and appropriate.

Studies of the Effects of Preprimary Education in Various Countries

The most extensive research on the effects of preprimary education programs on children has been conducted in the U.S. The Perry Preschool project (Berrueta-Clement, Schweinhart, Barnett, Epstein, & Weikart, 1984) and the work of the Consortium for Longitudinal Studies (1983) are two of the major U.S. preschool studies. Since information from these studies is readily available, such information is not included in this paper. Instead, we concentrate on preschool effects studies carried out in other countries. Obviously, because of the large differences in characteristics of nations, the results of studies from other countries are not easily generalized to the U.S. Nevertheless, these summaries of effects studies will give the reader some indication of both the pervasiveness of preprimary education

programs around the world and the high degree of importance that various peoples accord to "preprimary education."

The information presented in this section draws heavily on the work of Robert Myers, Coordinator of the Consultative Group on Early Childhood Care and Development. During the past 5 years, Myers has prepared two excellent reviews of early childhood intervention effects studies in developing countries (Halpern & Myers, 1985; Myers, 1988). Since there is often a gap of several years before research reports of such studies become generally available to others in the field, Myers is performing a valuable service by searching out and reporting such studies.

Africa

Researchers in Nigeria have conducted four studies exploring the relationship between participation in preprimary education programs and later performance in primary school. In all four studies, during the first year of primary school, students who participated in preprimary programs performed better than students who did not participate in such programs. Myers (1987) summarizes the findings of these studies as follows:

Results were mixed depending on whether the outcome variable was an IQ test, a researcher-prepared achievement test, or an official test for year-end promotion. There seemed to be a lasting effect of the early interventions on tested mental ability (Olatuni). A significant difference on research constructed achievement tests was found by two researchers (Imoagene, Roberts) but not by the third (Olatuni). One found a significant difference on official tests in favour of those with pre-school experiences (Roberts), another did not (Imoagene). In general, researchers suggested that pre-school effects weakened over time.

Pre-school attendance did seem to improve "school readiness" significantly (as indicated by (1) the differences found by Onibokun using an adapted, translated and back-translated version of the McCarthy Scales of Children's Abilities and (2) the differences found by Olatuni using Raven's Matrices). However, pre-school could not seem to compensate for deficiencies in primary school environments, particularly in the poorer quality public schools (p. 15).

Myers (1987) notes that weaknesses of the Nigerian studies included the small samples, the relatively high correspondence between social status and the likelihood of nursery school attendance, and the cross-sectional design of the studies.

Asia

India. Two research groups have evaluated the ICDS program described earlier in this paper. In one study, Chaturvedi and colleagues (1987) compared the academic performance, attendance, and general behavior of two groups of children aged 6 to 8--a group who participated in the ICDS program and a group who did not participate in the program (non-ICDS group). The ICDS group ($n = 214$) consisted of children from three villages randomly selected from the area served by the ICDS Program. These children had participated in the program for 6 years. The non-ICDS group ($n = 205$) came from three villages in an adjoining area not served by ICDS. Ninety-seven percent of the children living in the selected villages participated in the study. The two areas were very similar in characteristics (e.g., sociocultural), as were the two sets of families. The children were tested with the Raven's Progressive Matrices Test and the Seguin Form Board Test. Attendance data and academic performance data were obtained from school records, and general school behavior data resulted from a rating scale completed by the teachers. The results indicated that the ICDS students were significantly better than the non-ICDS in academic performance, attendance, and general school behavior (Myers, 1988).

In the second evaluation study, Lal and Wati (1986) assessed the effect of the ICDS program on performance, age-appropriate enrollment, and drop-out for children from 14 rural villages. The ICDS group consisted of 1,271 children who had participated in the program; the non-ICDS group was

composed of 436 children from the same area who had not participated in ICDS. School performance data resulted from interviews with teachers, who categorized students into three groups, using a 15-point scale. For each of the three main categories of caste (scheduled caste, backward caste, higher castes), ICDS students received higher performance rating, were more likely to be enrolled and less likely to have dropped out.

In discussing this study, Myers (1988) notes the following problems:

(1) For two of the three castes, the sample sizes were small, (2) no information is provided about the selection of the ICDS and non-ICDS students, and (3) the ICDS and non-ICDS students were from the same villages, which means that a "contamination effect" might have lessened the differences between the ICDS group and the non-ICDS group.

These two studies provide evidence of the effectiveness of the ICDS program, an ambitious effort to improve the health and education status of millions of children and their families in India.

Turkey. Kagitcibasi, Sunar, & Bekman (1987) carried out a 4-year study to compare the effects of an educational (ED) preschool program, a custodial (CUST) preschool program, and care by parents at home (HOME). As a further elaboration, each program type was delivered with a maternal training component (MT) and without such a component (NMT). A total of 251 low-income families from Istanbul were included in the six program groups, with each group consisting of approximately equal numbers of 3- and 5-year-old children. The children in the educational and custodial groups were selected from their respective preschool settings and attended these settings until they started school at age 6. Data collection (interviewing, observation, child testing) was done during years 1 and 4, while the maternal training component, consisting of home visits and group

discussions, was delivered during years 2 and 3.

The results are summarized by Kagitcibasi et al. as follows:

Overall, the results from the cognitive measures paint a picture of very strong influence by both environment and mother training. The ED group showed a significantly superior performance on 23 of the measures reported in this section, and a nonsignificant but positive trend on 5 of them. By contrast, the CUST group showed a significantly superior performance on only 3 of the measures, while the HOME group never had the highest score. Likewise, the MT group was superior to the NMT group on 12 of the measures and showed a nonsignificant positive trend on 15 of them, while the NMT group was in no case significantly superior to the MT group (p. 52).

In reporting the results of a multiple regression analysis, Kagitcibasi et al. state: "This pattern of results would indicate that preschool environment (i.e., an educational nursery school program), a comparatively high level of environmental stimulation, and the mother's expectation of competence from the child are the variables most strongly and consistently related with academic achievement as reflected in school grades" (p. 66).

Europe

Rye and Hundeide (1987), conducting an evaluation of the Alfragide Children's Project in Lisbon, Portugal, explored the long-term effects of a high quality early childhood education program. The children and families in this project had migrated from the Portuguese colonies at the end of the wars of liberation. The project included the implementation of the High/Scope Preschool Curriculum in the early childhood education program and the use of the preschool as a central point for community services. Rye and Hundeide report that 3 years after the conclusion of the project, the group receiving the program still maintained a significant IQ gain over the group not receiving the program (Rye & Hundeide, 1987).

South America

Colombia. Nimnicht and Posada (1986) present an evaluation of the PROMESA

project in 4 small, isolated, poor communities on the Pacific coast of Colombia. This project was designed to promote a better environment for the development of preprimary children through such activities as (1) a parent education program for mothers designed to foster the intellectual development of children aged 3 to 7, through their daily interactions, (2) a program to improve the physical environment of the village by building latrines and draining stagnant water, (3) adult education and vocational training, (4) an early stimulation program for mothers of children under 3 years of age, and (5) a nutrition program.

Myers (1988) notes that a cohort design was used to evaluate the effect on school achievement. Nimnicht et al. describe this design as follows: "the children came from the same population and were only different in their ages. Thus, if the program were effective in giving the younger children more opportunities to learn, then each year, the children in the first grade should test somewhat better than those children who were in the first grade the previous year. This should be true throughout the elementary school as the project progressed . . . " (p. 7).

Achievement tests were developed for students in the elementary grades and were administered each year from 1980 to 1985. The same tests were administered to students in a public school in a blue collar neighborhood (Sabaneta) of Medellin to provide comparative baseline data. Nimnicht et al. report: "The mathematics, language, and problem-solving scores for the first grade [went] . . . from significantly below the Sabaneta group to being on a par with that group . . . the same pattern holds for all five years" (p. 8).

Brazil. In the past few years, there have been several evaluation reports of the PROAPE program, a combined nutrition and nonformal preprimary

education program sponsored by the World Bank. A summary statement from an early report and a discussion from one of the more recent reports are included here.

In the PROAPE program, children aged 4 to 6 were brought together in centers in groups of about 100 during weekday mornings for supervised psychomotor activities, a snack, and a health program. An evaluation reported in Halpern and Myers (1985) showed that 73.5 percent of the program children passed first and second grade, compared with 59.5 percent of the nonparticipants.

In a more recent evaluation report, Berg and Brems (1987) note: "The academic performance of children with two years' exposure to PROAPE was consistently better than that of the nonparticipating group, ranging from 2 to 21 percent in three variants of the model" (p. 20). For one variant of the PROAPE model, Berg et al. report: "Of the children who had been in PROAPE, 93 percent in a sample group completed the first year of school, and 68 percent of that group passed to the second; in the second grade 94 percent of the remaining children completed the year, and 79 percent of these passed. Non-PROAPE children did less well. [Non-PROAPE percentages are 91, 57, 94, and 62, respectively.] The total cost of schooling (including preschool PROAPE services) per second-grade graduate was about \$US50 (or 11 percent) less for students who had been in the PROAPE program than for those who had not been in PROAPE" (p. 57).

Conclusion

The results of effects studies in other countries complement the data from studies conducted in the U.S. Due to the very recent occurrence of both the programs and the evaluation studies, only short-term effects were the focus of the reports just discussed. However, the general conclusion is that

preprimary education programs can have a positive effect on primary school outcomes for children (e.g., performance, attendance, advancement through grades).

Discussion

How can information about preprimary education programs in other nations help with the planning for preprimary education programs in the U.S.? In this final section, we offer a few suggestions.

Even though, for the cross-national comparisons made earlier in this paper, it was appropriate to use the U.S. preprimary education coverage rate for 3- to 6-year-old children (60 percent), the rate that is more relevant to the present discussion is the coverage rate for 3- to 5-year-old children (45 percent). That is, since kindergarten is already institutionally a part of the U.S. education system, services for 3- and 4-year-old children will likely be the focus for future preprimary education planning.

What information is needed for planning U.S. preprimary education services for 3- and 4-year-old children? First, information about the families who are (and will be) using these services is vital. Second, information about the services currently in operation is important; planners should know the extent of present services and be aware of the quality of these services (i.e., what quality of life children are experiencing).

Also, information about the characteristics of families with preprimary children in other countries is important. This information can help planners to identify other countries with similar situations (such as high female employment) and allow cross-national discussion of potential solutions. Finally, information about the nature of preprimary services in other countries can be significant, since it will allow the U.S. to examine a range of services that is broader than the range currently available in this

country and to explore the relationships among different types of services, family and child characteristics, and outcomes.

Information About U.S. Families with Preschool-Aged Children

Information about the families and children who will participate in any future preprimary education programs needs to be collected. This information can be gathered through surveys and other forms of "direct" data collection, or it can be obtained by examining past data and projecting trends. An example of "direct" data collection is the U.S. Child Care Survey currently being coordinated by the High/Scope Foundation (Olmsted, 1988). This survey constitutes the U.S. component of Phase 1 of the three-phase international Preprimary Project, which is operated under the auspices of the International Association for the Evaluation of Educational Achievement (IEA). The U.S. Child Care Survey is one of the first studies in which a representative sample of U.S. families with preschool-aged children has been located and interviewed about their use of and perceived needs for early childhood care and education services. In addition, information about family characteristics has been solicited to allow for the examination of the relationships between these characteristics and the use of early childhood services.

A basic assumption of the U.S. Child Care Survey is that it is important to gather such information directly from families, rather than from providers of children's services. Data collected from the provider of a specific early childhood service represent families who already know about the service, have transportation available, can afford the service, and so on. Thus, families who are not currently using organized services for one reason or another are overlooked in "provider studies," and an incomplete picture results. The U.S. Child Care Survey is an attempt to "complete the

picture" of families with preschool-aged children.

The second strategy for obtaining information about U.S. families with preschool-aged children is by projecting trends from past statistics. An example of this procedure is provided by Hofferth and Phillips (1987), who have estimated that if past trends continue, by 1995 the proportion of children under age 6 with mothers in the labor force will reach 66 percent.

Information About Preprimary Education Services in the U.S.

Since early childhood care and education services in the U.S. are sponsored by agencies at all three levels of government, by churches, and by private organizations and individuals, it is extremely difficult to obtain a total picture of the types of services provided for 3- and 4-year-old children. Recently, various studies (e.g., Mitchell, 1988) have provided information about the extent of services of a particular type (such as public school preschool programs), but combining the results of the various studies into one comprehensive picture is impossible owing to their different methods of data collection, their different years of data collection, and their possibilities for double-counting certain kinds of services (such as Head Start programs situated in public schools).

As mentioned earlier, data about the quality of life provided for children by various early childhood services is critical also. Information about the experiences children are having in their care and education settings (e.g., in commercial preprimary programs or in Head Start programs) can provide data for examining the influences of different types of preprimary services on children's later development and performance. However, it is crucial that this information not be limited to a documentation of such easily defined setting characteristics as group size and adult/child ratio. These factors are necessary but not sufficient

indicators of the quality of services. The data about settings should also include information obtained by researchers' direct observations of the adult-child interactions, the child-child interactions, and the adult behaviors. Only through such direct observation can complete information about the experiences that children have in various settings be collected.

Information About Families in Other Countries with Preschool-Aged Children

The U.S. and many other countries in the world are becoming increasingly similar in family characteristics; increasing participation of mothers in the labor force, dwindling family size, and disappearing extended-family support are almost worldwide phenomena. Consequently, it is more important than ever for the U.S. to participate in cross-national data collection of basic information about families. Furthermore, to ensure that the resulting information is of maximum value, it is important for the U.S. to participate in the formulation of questions and definitions as well as in the development of data collection forms.

In addition, information about families' utilization of early childhood services in other countries is important. For countries similar to the U.S. in basic family characteristics, information about how families select specific services (when choices are available) and how families coordinate the use of multiple services could be very useful, since very little data of this type is available in the U.S.

Information About Preprimary Education Services in Other Countries

Since a large number of countries in the world operate preprimary education services, they no doubt have faced many of the same basic issues that the U.S. is currently facing--issues such as how to coordinate "care" and "education" services, what various types of services to operate, and how

best to finance services. Information of this nature would be useful to the U.S. as it plans future early childhood services.

Also, several countries operate forms of preprimary service that are not common in the U.S. (such as playclubs in Finland, community preschools in Swaziland, and boarding kindergartens in the People's Republic of China), and information about these types of settings can provide a wider range of services for the U.S. to consider.

Finally, information about the quality of life for children in preprimary services in other countries can be enlightening. Data about the activities provided for children as well as about the nature of the adult-child and child-child interactions can be used to evaluate the influence of various types of services on children's later development. A current example of a study of this type is the IEA Preprimary Project. In Phases 2 and 3 of this study, data will be collected through observations in preprimary settings, interviews with caregivers, and assessments of children (at age 4 and later at age 7) in 13 countries around the world. During 1990 the instruments to be used in the study, which have been jointly developed by all participating countries, will be pilot tested and revised. The data collection will occur during 1991-92 (Phase 2), with the follow-up testing of the children occurring during 1994-95 (Phase 3).

Conclusion

Today, early childhood programs operate in nations throughout the world. As the U.S. plans for future early childhood programs, information from other countries should be utilized in this process; this would allow for a wider examination of the major issues, a more thorough consideration of potential solutions to current problems, and result in the most comprehensively-based system of services possible for preprimary children.

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Table 1

Percent of Economically Active Females From 15 to 39 Years Old
For Selected Countries^a

Region and Country	% Economically Active	Region and Country	% Economically Active
Asia		Africa	
^b China (PRC)	87	Burundi	88
Thailand	81	Burkina Faso	79
Hong Kong	61	Gambia	69
Singapore	58	Benin	39
Japan	51	Tunisia	28
Indonesia	50	Egypt	19
Philippines	47	Algeria	10
Israel	44		
Korea (ROK)	42	Americas	
Sri Lanka	41	Canada	70
Turkey	38	United States	67
Kuwait	34	Colombia	53
^c India	31	Peru	52
Pakistan	10	Haiti	51
Bangladesh	8	Brazil	48
		Trinidad/Tobago	43
Europe		Panama	40
Bulgaria	82	Argentina	37
Denmark	82	Costa Rica	37
Finland	75	Ecuador	35
Portugal	64	Chile	34
United Kingdom	64	Guatemala	29
Austria	62	Bolivia	26
Germany (FR)	62		
France	60	Oceania	
Netherlands	58	New Zealand	67
Italy	53	Australia	64
Ireland	46		
Greece	44		

Note: Statistics are from Year Book of Labour Statistics, 1988, 48th Issue.
Geneva: International Labour Office.

^aIncludes all countries with populations over 1,000,000 for which data were available for 1984 or later.

^bMost recent data reported for 1982, but included due to large size and importance of country.

^cMost recent data reported for 1981, but included due to large size and importance of country.

Table 2

U.S. Early Childhood Care and Education in 1987

Population Category	Group Size in Thousands (% of Age Group)		
	Aged 0--2	Aged 3--4	Aged 0--4
All Children ^a	9,629 (100%)	6,454 (100%)	16,083 (100%)
With mothers in labor force ^a	4,921 (51%)	3,497 (54%)	8,418 (52%)
In parental care during work ^b	1,226 (13%)	783 (12%)	2,009 (12%)
In relative or in-home care ^b	1,628 (17%)	908 (14%)	2,536 (16%)
In nonrelative care in other homes ^b	1,265 (13%)	621 (10%)	1,886 (12%)
In centers or schools ^b	802 (8%)	1,186 (18%)	1,988 (12%)
With mothers not in labor force ^a	4,708 (49%)	2,957 (46%)	7,665 (48%)
In parental care only	4,708 (49%)	1,940 (30%)	6,648 (41%)
In centers or schools ^c	0 (0%)	1,017 (16%)	1,017 (6%)
In any form of extrafamilial, out-of-home care or education ^d	2,013 (21%)	2,888 (45%)	4,901 (30%)

^aFrom U.S. Bureau of Labor Statistics, unpublished data, November 30, 1988.

^bFrom U.S. Bureau of the Census, Who's Minding the Kids? Child Care Arrangements: Winter 1984--85, Series P-70, No. 9 (Washington, DC: U.S. Government Printing Office, 1987), p. 5. Given figures multiplied by 1.058 for ages 0--2 and .995 for ages 3--4 to match 1987 totals.

Table 2--Cont.

U.S. Early Childhood Care and Education in 1987

^cFrom National Center for Education Statistics, The Condition of Education 1986 Edition (Washington, DC: U.S. Government Printing Office, 1986), pp. 5, 13. In 1984, 34.4 percent of 3- and 4-year-olds of mothers not working were enrolled in centers or schools.

^dPercent totals in this row were affected by rounding of component percents.

Table 3

Preprimary Education Coverage Rates for Selected Countries

Country	UNESCO/UN		Other Sources			
	Coverage Rate (CR)	CSA	A CR (Ages)	B CR (Ages)	C CR (Ages)	D CR (Ages)
Belgium	99	6	98 (3-6)	95 (3-5)		
France	99	6		95 (3-5)		
Germany (DR)	99	6				
Israel	99	5				
Hungary	98	6	91 (3-6)			
Czechoslovakia	93	6				
Germany (FR)	89	6	65 (3-6)	60 (3-5)		
Hong Kong	89	6	99 (3-6)			
Italy	82	6	87 (3-6)	88 (3-5)		
Romania	79	6				
Bulgaria	72	6				
Ireland	69	6		52 (3-5)		
Sweden	69	7				100 (6)
Austria	68	6				
United States	60	6	60 (3-6)			
Poland	51	7				
Norway	45	7				
Japan	44	6				
New Zealand	42	5				90 (4)
Switzerland	42	7				
Canada	38	6				
Finland	37	7	41 (3-6)			
Mexico	35	6				

Table 3--Cont.

Preprimary Education Coverage Rates for Selected Countries

Country	UNESCO/UN		Other Sources			
	Coverage Rate (CR)	CSA	A CR (Ages)	B CR (Ages)	C CR (Ages)	D CR (Ages)
Argentina	34	6				
Kuwait	30	6				
Venezuela	28	7				
Malaysia	27	6				
Chile	26	6			38 (4-5)	
Cuba	24	6			44 (4-5)	
Denmark	24	7		87 (3-6)		
Kenya	24	6	25 (3-6)		11 (3-5)	
United Kingdom	24	5		44 (3-4)		
Portugal	23	6	32 (3-6)	25 (3-5)		
Australia	22	6				
Peru	20	6				
Costa Rica	19	6				
Brazil	16	7				
Panama	16	7				
Korea (ROK)	15	6				57 (5)
Guatemala	13	7				
Thailand	13	7	26 (3-6)			24 (3-6)
Honduras	8	7			11 (4-6)	
Indonesia	7	7				
Cameroon	6	6				
Congo	3	6				
Ethiopia	1	7				

Table 3--Cont.

Preprimary Education Coverage Rates for Selected Countries

Country	UNESCO/UN		Other Sources			
	Coverage Rate (CR)	CSA	A CR (Ages)	B CR (Ages)	C CR (Ages)	D CR (Ages)
Burundi	<1	7				
Bolivia					34 (4-5)	
Botswana					3 (2.5-6)	
China (PRC)			20 (3-6)		24 (3-6)	
Colombia					36 (5)	
Dom. Republic					29 (6)	
Ecuador					30 (5)	
El Salvador					20 (4-6)	
Greece				62 (3-5.5)		
Laos					4 (4-6)	
Luxembourg				48 (3-4)		
Netherlands				50 (3-4)		
Philippines			20 (3-6)			19 (3-6)
Spain			68 (3-6)	66 (3-5)		
Vietnam					35 (3-6)	

KEY

CR Coverage Rate
 CSA Compulsory School Attendance Age
 (Ages) Age range

Table 3--Cont.

Preprimary Education Coverage Rates for Selected Countries

Sources for Information in TABLE 3

UNESCO/UN Information

UNESCO. (1988). *1988 Yearbook*. Paris: Author.

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Source A

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Source B

Moss, P. (1988). *Childcare and equality of opportunity*. Consolidated Report to the European Commission, V/746,88-EN.

Source C

Myers, R. G. (1989). *The twelve who survive*. (Draft manuscript).

He notes that information for South American countries is from UNESCO-CREALC, 1987 and information for Asian countries is from UNICEF reports for the period from 1986 to 1988.

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